Complete Summary

GUIDELINE TITLE

Preoperative evaluation.

BIBLIOGRAPHIC SOURCE(S)

Institute for Clinical Systems Improvement (ICSI). Preoperative evaluation. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2006 Jul. 33 p. [37 references]

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Preoperative evaluation. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2003 Sep. 34 p.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Conditions that require elective, low-risk operative procedures

GUIDELINE CATEGORY

Evaluation
Risk Assessment

CLINICAL SPECIALTY

Anesthesiology
Family Practice
Internal Medicine
Nursing
Pediatrics
Surgery

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Health Care Providers
Health Plans
Hospitals
Managed Care Organizations
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

- To obtain appropriate preoperative history and exam, and to reduce preoperative diagnostics performed without clinical indications
- To eliminate canceled or delayed surgical procedures due to lack of appropriate preoperative assessment and reporting

TARGET POPULATION

Adult and pediatric patients under evaluation for elective, low-risk operative procedures

Note: Pediatric patients for whom this guideline is intended are those between the ages of 2 and 15 years. Patients over age 15 are considered adults for the purposes of this guideline

INTERVENTIONS AND PRACTICES CONSIDERED

Preoperative Assessment

1. Preoperative health assessment, including medical history, physical examination, electrocardiography (ECG) (for selected patients), and patient education
2. Further evaluation as appropriate if preoperative assessment is abnormal (e.g., tests for hemoglobin and potassium, coagulation studies, chest x-ray) and assessment of beta blocker use and smoking status
3. Communicating results to site where procedure will be conducted
4. Determining if patient is considered high risk
5. Immediate pre-procedure assessment

MAJOR OUTCOMES CONSIDERED

- Risk of cardiac or other operative complications

- Identification of electrocardiographic abnormalities
- Morbidity and mortality due to surgery

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Key conclusions (as determined by the work group) are supported by a conclusion grading worksheet that summarizes the important studies pertaining to the conclusion. Individual studies are classed according to the system presented below, and are designated as positive, negative, or neutral to reflect the study quality.

Conclusion Grades:

Grade I: The evidence consists of results from studies of strong design for answering the question addressed. The results are both clinically important and consistent with minor exceptions at most. The results are free of any significant doubts about generalizability, bias, and flaws in research design. Studies with negative results have sufficiently large samples to have adequate statistical power.

Grade II: The evidence consists of results from studies of strong design for answering the question addressed, but there is some uncertainty attached to the conclusion because of inconsistencies among the results from the studies or because of minor doubts about generalizability, bias, research design flaws, or adequacy of sample size. Alternatively, the evidence consists solely of results from weaker designs for the question addressed, but the results have been confirmed in separate studies and are consistent with minor exceptions at most.

Grade III: The evidence consists of results from studies of strong design for answering the question addressed, but there is substantial uncertainty attached to the conclusion because of inconsistencies among the results of different studies or

because of serious doubts about generalizability, bias, research design flaws, or adequacy of sample size. Alternatively, the evidence consists solely of results from a limited number of studies of weak design for answering the question addressed.

Grade Not Assignable: There is no evidence available that directly supports or refutes the conclusion.

Study Quality Designations:

The quality of the primary research reports and systematic reviews are designated in the following ways on the conclusion grading worksheets:

Positive: indicates that the report or review has clearly addressed issues of inclusion/exclusion, bias, generalizability, and data collection and analysis.

Negative: indicates that these issues (inclusion/exclusion, bias, generalizability, and data collection and analysis) have not been adequately addressed.

Neutral: indicates that the report or review is neither exceptionally strong nor exceptionally weak.

Not Applicable: indicates that the report is not a primary reference or a systematic review and therefore the quality has not been assessed.

Classes of Research Reports:

A. Primary Reports of New Data Collection:

   Class A:

   - Randomized, controlled trial

   Class B:

   - Cohort study

   Class C:

   - Non-randomized trial with concurrent or historical controls
   - Case-control study
   - Study of sensitivity and specificity of a diagnostic test
   - Population-based descriptive study

   Class D:

   - Cross-sectional study
   - Case series
   - Case report

B. Reports that Synthesize or Reflect upon Collections of Primary Reports:

Class M:

- Meta-analysis
- Systematic review
- Decision analysis
- Cost-effectiveness analysis

Class R:

- Consensus statement
- Consensus report
- Narrative review

Class X:

- Medical opinion

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

The guideline developers reviewed published cost analyses.

METHOD OF GUIDELINE VALIDATION

Clinical Validation-Pilot Testing
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Institute Partners: System-Wide Review

The guideline draft, discussion, and measurement specification documents undergo thorough review. Written comments are solicited from clinical, measurement, and management experts from within the member medical groups during an eight-week period of "Critical Review."

Each of the Institute's participating medical groups determines its own process for distributing the guideline and obtaining feedback. Clinicians are asked to suggest modifications based on their understanding of the clinical literature coupled with their clinical expertise. Representatives from all departments involved in implementation and measurement review the guideline to determine its operational impact. Measurement specifications for selected measures are developed by the Institute for Clinical Systems Improvement (ICSI) in collaboration with participating medical groups following general implementation of the guideline. The specifications suggest approaches to operationalizing the measure.

Guideline Work Group: Second Draft

Following the completion of the "Critical Review" period, the guideline work group meets 1 to 2 times to review the input received. The original guideline is revised as necessary, and a written response is prepared to address each of the suggestions received from medical groups. Two members of the Committee on Evidence-Based Practice carefully review the Critical Review input, the work group responses, and the revised draft of the guideline. They report to the entire committee their assessment of two questions: (1) Have the concerns of the medical groups been adequately addressed? (2) Are the medical groups willing and able to implement the guideline? The committee then either approves the guideline for pilot testing as submitted or negotiates changes with the work group representative present at the meeting.

Pilot Test

Medical groups introduce the guideline at pilot sites, providing training to the clinical staff and incorporating it into the organization's scheduling, computer and other practice systems. Evaluation and assessment occur throughout the pilot test phase, which usually lasts for three months. Comments and suggestions are solicited in the same manner as used during the "Critical Review" phase.

The guideline work group meets to review the pilot sites' experiences and makes the necessary revisions to the guideline, and the Committee on Evidence-Based Practice reviews the revised guideline and approves it for implementation.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Note from the National Guideline Clearinghouse (NGC) and the Institute for Clinical Systems Improvement (ICSI): In addition to updating their clinical guidance, ICSI has developed a new format for all guidelines. Key additions and changes include: combination of the annotation and discussion section; the addition of "Key Points" at the beginning of most annotations; the inclusion of references supporting the recommendations; and a complete list of references in the Supporting Evidence section of the guideline. For a description of what has changed since the previous version of this guidance, refer to Summary of Changes – July - 2006.

The recommendations for preoperative evaluation are presented in the form of an algorithm with 10 components, accompanied by detailed annotations. An algorithm is provided for Preoperative Evaluation. Clinical highlights and selected annotations (numbered to correspond with the algorithm) follow.

Class of evidence (A-D, M, R, X) and conclusion grade (I-III, Not Assignable) definitions are repeated at the end of the "Major Recommendations" field).

Clinical Highlights

- Provide a comprehensive preoperative basic health assessment for all patients undergoing a diagnostic or therapeutic procedure as defined in the guideline. (Annotation #4)
- Most laboratory and diagnostic tests including electrocardiograms (ECGs) are not necessary with routine procedures unless a specific indication is present. (Annotation #6)
- ECGs are not indicated, regardless of age, for those patients having cataract surgery. (Annotation #4)
- Patients on chronic beta-blocking therapy should continue taking their beta-blocker medication up to and including the day of surgery. If beta-blocker therapy is stopped prior to surgery, patients are at increased risk for complications postoperatively. (Annotation #6)

Preoperative Evaluation Algorithm Annotations

1. Decision to Perform Elective Procedure

   The decision to perform an elective procedure is usually made at the time of the surgical or other consultation. There may be exceptions; for example, a nonsurgical procedure such as a computed tomography (CT)-guided lung biopsy might be arranged by the primary physician after discussion with a radiologist.

   A member of the surgical team explains the procedure and the need for anesthesia to the patient and may obtain and document consent. (These issues must be addressed but are not part of this guideline.)

   Patient education is essential to assist the patient in preparing for the surgical procedure and to reinforce compliance to preoperative instructions. The "Patient Preoperative Guide," an optional tool, may assist in these efforts. Please refer to Appendix A in the original guideline document.

   Patients undergoing high-risk or emergent procedures are beyond the scope of this guideline as a more extensive evaluation and risk assessment may be needed.

2. High-Risk Procedure?

   Key Points:

- High-risk procedures include those where cardiovascular complications (for adults) and pulmonary complications (for children) inherently exist.
- Procedural risk stratification changes rapidly due to the introduction of different anesthesia types and the development of less-invasive surgical procedures.

High-risk referred to here is primarily surgical procedure derived risk of cardiac/pulmonary complication. Cardiovascular complications are more common in adults, and pulmonary complications are more common in children. If a procedure presents other specific noncardiovascular associated high risk, that risk and its stratification are beyond the scope of this guideline and need to be individually addressed by the surgeon. For example, a neurosurgical procedure may have an inherent elevated hemostasis risk.

Although it is ultimately up to the involved providers to determine whether a particular procedure is considered to be high risk, it is generally accepted that most high-risk (greater than 5 percent combined incidence of cardiac death and nonfatal myocardial infarction) procedures fall into the following categories:

- Cardiac procedures
- Aortic and other major vessel vascular procedures
- Peripheral arterial vascular procedures
- Anticipated prolonged surgical procedures (usually greater than two hours) associated with large fluid shifts and/or blood loss (e.g., pancreas resection [Whipple procedure], major spinal surgery).

3. Out of Guideline

Although patients having high-risk procedures are not included in this guideline, a preoperative basic health assessment as defined by this guideline should also form the foundation of the preoperative evaluation for this group of patients.

Patients having high-risk procedures are not included in the guideline because further adjunctive evaluation may be needed even though not specifically suggested by the preoperative basic health assessment.

4. Preoperative Basic Health Assessment

A complete preoperative basic health assessment includes:

- Medical History

  Indication for surgical procedure

  Allergies and intolerances to medications, anesthesia, or other agents (specify reaction type)

  Known medical problems

Surgical history

Trauma (major)

Current medications (prescription, over-the-counter medications, herbal and dietary supplements, and illicit drugs)

Focused review of issues pertinent to the planned anesthesia and procedure:

- Current status of pertinent known medical problems
- Cardiac status
- Pulmonary status
- Functional status
- Hemostasis status (personal or family history of abnormal bleeding)
- Possibility of severe (symptomatic) anemia

- Physical Exam

  Weight and height

  Vital signs - blood pressure, pulse (rate and regularity), respiratory rate

  Cardiac

  Pulmonary

  Other pertinent exam

- Electrocardiogram (ECG)

  Recommended for all patients age 55 and over, within one year prior to procedure. Also, ECGs are not indicated, regardless of age, for those patients having cataract surgery.

  Preoperative ECGs are not predictive of cardiac risk. [Conclusion grade II: See Conclusion Grading Worksheet A - Annotation #4 (ECGs not Predictive) in the original guideline document].

- Patient Education

  Procedure-specific

  General orientation

A preoperative basic health assessment as outlined in this guideline is required for all patients undergoing a diagnostic or therapeutic procedure, regardless of setting, except for:

- Otherwise healthy patients receiving peripheral nerve blocks, local or topical anesthesia, and/or no more than 50% nitrogen oxide (N_2O) oxygen and no other sedative or analgesic agents administered by any route (for example, most dental procedures or excision of simple skin lesions).
- Patients receiving "sedation/analgesia" (often referred to as "conscious sedation") defined as "a state that allows patients to tolerate unpleasant procedures while maintaining adequate cardiopulmonary function and the ability to respond purposefully to verbal command and/or tactile stimulation." This technique is commonly used for procedures such as endoscopy and bronchoscopy, and may be used for certain surgical procedures. Patient history must be available at the time they receive sedation/analgesia.

Although the preoperative basic health assessment is not specifically required for sedation/analgesia and other minor procedures, a limited preoperative assessment and documentation is required and mandated by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and other organizations.

- The preoperative basic health assessment may be done anytime within thirty days of the planned procedure. A brief interim history and physical may be required to satisfy regulatory agencies.
- The patient needs to be aware that the preoperative assessment is not a substitute for preventive services, but the preoperative evaluation may be used as an opportunity to address preventive services.
- This is another opportune time to initiate or augment patient education efforts including the use of the patient preoperative guide, and Appendices C and D, "Preoperative Questionnaire" in the original guideline document.
    - Possibility of pregnancy
    - Past personal or family history of anesthesia problems
    - Smoking and alcohol history
    - Functional status

    A sample preoperative form is attached in Appendix B, "Preoperative Forms—Adult and Pediatric", in the original guideline document.

Evidence supporting these recommendations is of classes: A, B, C, D, R

5. Abnormal Findings Pertinent to Preoperative Evaluation?

Abnormal findings are results from the preoperative basic health assessment that suggest that further evaluation is needed in order to assess or optimize surgical/anesthesia risk and care. Examples of positive findings are a patient taking medication such as a diuretic suggesting the need for a recent potassium level, the presence of chest pains, or a markedly elevated blood pressure. Examples of abnormal findings in pediatric patients include a current upper respiratory infection (URI) or asthma.

There may be other abnormal findings that, although not relevant to the planned procedure, may be relevant to the patient's general health. The evaluation of these findings would follow standard medical practice and is beyond the scope of the guideline. This type of finding would not necessarily need to delay the procedure.

Preoperative questionnaires to assist in determining abnormal findings for adult and pediatric patients are attached in Appendix C, "Preoperative Questionnaire—Adults" and Appendix D, "Preoperative Questionnaire—Pediatrics" in the original guideline document.

6. Further Evaluation Performed and Evaluated for Surgical/Anesthesia Risk

Key Points:

- Most laboratory and diagnostic tests including ECG are not necessary for routine procedures unless a specific indication is present. The role of a preoperative ECG is uncertain. On rare occasions, an ECG can detect a previously unrecognized myocardial infarction (MI).
- ECGs are not indicated, regardless of age, for those patients having cataract surgery.

Further evaluation may be as simple as asking a few more questions, performing further physical examination, or ordering a laboratory or radiological exam. More in-depth evaluations may be needed such as a consultation or treadmill testing.

The type and extent of evaluation required should be guided by standard medical practice with consideration of the patient's underlying medical condition and the planned procedure. For example, some practitioners will order a baseline preoperative hemoglobin if significant blood loss is anticipated. Recommendations for this type of testing are beyond the scope of the guideline.

Abnormal findings might trigger a need for a specific laboratory test. Note that most laboratory tests (e.g., hemoglobin, potassium, coagulation studies, chest x-rays, ECGs) are not routinely necessary unless a specific indication is present.

Test	Consider performing if:
ECG	• No ECG within last year in patients (regardless of age) with history of diabetes, hypertension, chest pain, congestive heart failure, smoking, peripheral vascular disease, inability to exercise, or morbid obesity • At time of preoperative evaluation, testing should occur in patients with any intercurrent cardiovascular symptoms or with signs and symptoms of new or unstable cardiac disease.
Coagulation	• Patient has a known history of coagulation

studies	abnormalities or recent history suggesting coagulation problems or on anticoagulants. • Patient needs anticoagulation post-operatively (where a baseline may be needed).
Hemoglobin	• Patient has a history of anemia or history suggesting recent blood loss or anemia.
Potassium	• Patient is taking digoxin or diuretics.
Chest x-ray	• Patient has signs or symptoms suggesting new or unstable cardiopulmonary disease.

Evidence supporting the recommendation on ECG is of classes: A, B, C, D, M, R

Evidence supporting the recommendation on coagulation studies is of class: C

Evidence supporting the recommendation on hemoglobin is of class: R

Beta-Blockers

Patients on chronic beta-blocker therapy should continue their medication up to and including the day of surgery. If beta-blocker therapy is stopped prior to surgery, patients may be at increased risk for complications postoperatively.

Evidence supporting this recommendation is of class: R

Smoking Cessation

Smoking cessation is an important intervention for the overall health of patients and surgery may provide the impetus for patients to quit. Please see the ICSI Tobacco Use, Prevention, and Cessation for Adults and Mature Adolescents guideline for more information.

Patients who quit smoking prior to surgery do not risk postoperative complications related to smoking cessation. With the exception of improved wound healing for head and neck surgeries, there is not strong evidence to recommend smoking cessation prior to surgery as a means to achieve improved outcomes and reduce postoperative complications.

Evidence supporting this recommendation is of class: D

7. Communicate Results to Site

The results must be communicated to the location where the procedure will be conducted prior to the date of the scheduled procedure. The report should

include a complete summary of the assessment, any adjunctive evaluation, and any specific recommendations.

Preoperative forms for relaying preoperative assessment information for adult and pediatric patients are attached in Appendices C and D, "Preoperative Questionnaire," in the original guideline document.

8. High Risk Patient?

High-risk in this context refers particularly to the risk of cardiac complications in adults and airway complications in pediatric patients. However, noncardiac conditions in adults and cardiac conditions in pediatric patients, along with other conditions such as coagulopathy, severe symptomatic anemia, pregnancy, and anesthesia reactions can be significant problems in selected patients. These conditions also need to be screened for as indicated in the preoperative basic health assessment. The specifics of risk stratification for noncardiac conditions relative to an individual patient are beyond the scope of this guideline.

The final determination of a patient as high risk occurs after review and analysis of the preoperative basic health assessment and any other adjunctive evaluation that was indicated for surgical/anesthesia risk. The determination is the responsibility of involved providers, including the primary care physician, surgeon, and/or anesthesiologist.

Although it is ultimately the responsibility of involved providers to determine whether a particular patient is considered to be at high risk of complication, it is generally accepted that patients at high risk usually fall into the following categories:

Cardiovascular

- Unstable coronary syndromes
    - Recent* myocardial infarction (MI)
    - Unstable or severe angina

      *Recent can mean less than 30 days if post myocardial infarction cardiac risk stratification is completed and patient determined to be low-risk; 3 to 6 months if formal risk stratification not done.

- Decompensated congestive heart failure
- Significant arrhythmias
    - High grade atrioventricular block
    - Symptomatic ventricular arrhythmias in the presence of underlying heart disease
    - Supraventricular arrhythmias with uncontrolled ventricular rate
- Severe valvular disease
- Severe hypertension (diastolic over 110, systolic over 180)
- Congenital heart abnormalities in pediatric patients

Non-Cardiovascular

- Pulmonary disease, severe or symptomatic (e.g., chronic obstructive pulmonary disease requiring oxygen, respiratory distress at rest, asthma, cystic fibrosis, etc)
- Poorly controlled symptomatic diabetes (causing symptoms with attendant risk of hypovolemia)
- Symptomatic anemia

9. Immediate Pre-Procedure Assessment

The immediate pre-procedure assessment is completed when the patient arrives for the procedure. The purpose is to assure that all necessary information is available and that the patient's medical condition is stable (i.e., he/she continues to be a low-risk patient). The nature of this review is beyond the scope of the guideline but is defined by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and other regulatory agencies.

Definitions:

Conclusion Grades:

Grade I: The evidence consists of results from studies of strong design for answering the question addressed. The results are both clinically important and consistent with minor exceptions at most. The results are free of any significant doubts about generalizability, bias, and flaws in research design. Studies with negative results have sufficiently large samples to have adequate statistical power.

Grade II: The evidence consists of results from studies of strong design for answering the question addressed, but there is some uncertainty attached to the conclusion because of inconsistencies among the results from the studies or because of minor doubts about generalizability, bias, research design flaws, or adequacy of sample size. Alternatively, the evidence consists solely of results from weaker designs for the question addressed, but the results have been confirmed in separate studies and are consistent with minor exceptions at most.

Grade III: The evidence consists of results from studies of strong design for answering the question addressed, but there is substantial uncertainty attached to the conclusion because of inconsistencies among the results of different studies or because of serious doubts about generalizability, bias, design flaws, or adequacy of sample size. Alternatively, the evidence consists solely of results from a limited number of studies of weak design for answering the question addressed.

Grade Not Assignable: There is no evidence available that directly supports or refutes the conclusion.

Classes of Research Reports:

A. Primary Reports of New Data Collection:

Class A:

- Randomized, controlled trial

Class B:

- Cohort study

Class C:

- Non-randomized trial with concurrent or historical controls
- Case-control study
- Study of sensitivity and specificity of a diagnostic test
- Population-based descriptive study

Class D:

- Cross-sectional study
- Case series
- Case report

B. Reports that Synthesize or Reflect upon Collections of Primary Reports:

Class M:

- Meta-analysis
- Systematic review
- Decision analysis
- Cost-effectiveness analysis

Class R:

- Consensus statement
- Consensus report
- Narrative review

Class X:

- Medical opinion

CLINICAL ALGORITHM(S)

A detailed and annotated clinical algorithm is provided for Preoperative Evaluation.

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is classified for selected recommendations (see "Major Recommendations").

In addition, key conclusions contained in the Work Group's algorithm are supported by a grading worksheet that summarizes the important studies that pertaining to the conclusion. The type and quality of the evidence supporting these key recommendations (i.e., choice among alternative therapeutic approaches) is graded for each study.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Decreased morbidity and mortality due to surgery
- Elimination of canceled or delayed surgical procedures
- Appropriate preoperative history taking and reduction of diagnostics performed without clinical indications

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- This clinical guideline is designed to assist clinicians by providing an analytical framework for the evaluation and treatment of patients, and is not intended either to replace a clinician's judgment or to establish a protocol for all patients with a particular condition. A guideline will rarely establish the only approach to a problem.
- This clinical guideline should not be construed as medical advice or medical opinion related to any specific facts or circumstances. Patients are urged to consult a health care professional regarding their own situation and any specific medical questions they may have.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

Once a guideline is approved for general implementation, a medical group can choose to concentrate on the implementation of that guideline. When four or more groups choose the same guideline to implement and they wish to collaborate with others, they may form an action group.

In the action group, each medical group sets specific goals they plan to achieve in improving patient care based on the particular guideline(s). Each medical group shares its experiences and supporting measurement results within the action group. This sharing facilitates a collaborative learning environment. Action group learnings are also documented and shared with interested medical groups within the collaborative.

Currently, action groups may focus on one guideline or a set of guidelines such as hypertension, lipid treatment, and tobacco cessation.

Detailed measurement strategies are presented in the original guideline document to help close the gap between clinical practice and the guideline recommendations. Summaries of the measures are provided in the National Quality Measures Clearinghouse (NQMC).

Key Implementation Recommendations

The following system changes were identified by the guideline work group as key strategies for health care systems to incorporate in support of the implementation of this guideline.

1. Establish a system to provide the timely communication of the results of the assessment to the procedure location.
2. Promote patient awareness of the planned procedure and preoperative process prior to the date of the procedure.

IMPLEMENTATION TOOLS

Chart Documentation/Checklists/Forms
Clinical Algorithm
Pocket Guide/Reference Cards
Quality Measures

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Institute for Clinical Systems Improvement (ICSI). Preoperative evaluation. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2006 Jul. 33 p. [37 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1997 Sep (revised 2006 Jul)

GUIDELINE DEVELOPER(S)

Institute for Clinical Systems Improvement - Private Nonprofit Organization

GUIDELINE DEVELOPER COMMENT

Organizations participating in the Institute for Clinical Systems Improvement (ICSI): Affiliated Community Medical Centers, Allina Medical Clinic, Altru Health System, Aspen Medical Group, Avera Health, CentraCare, Columbia Park Medical Group, Community-University Health Care Center, Dakota Clinic, ENT Specialty Care, Fairview Health Services, Family HealthServices Minnesota, Family Practice Medical Center, Gateway Family Health Clinic, Gillette Children's Specialty Healthcare, Grand Itasca Clinic and Hospital, HealthEast Care System, HealthPartners Central Minnesota Clinics, HealthPartners Medical Group and Clinics, Hutchinson Area Health Care, Hutchinson Medical Center, Lakeview Clinic, Mayo Clinic, Mercy Hospital and Health Care Center, MeritCare, Mille Lacs Health System, Minnesota Gastroenterology, Montevideo Clinic, North Clinic, North Memorial Care System, North Suburban Family Physicians, Northwest Family Physicians, Olmsted Medical Center, Park Nicollet Health Services, Pilot City Health Center, Quello Clinic, Ridgeview Medical Center, River Falls Medical Clinic, Saint Mary's/Duluth Clinic Health System, St. Paul Heart Clinic, Sioux Valley Hospitals and Health System, Southside Community Health Services, Stillwater Medical Group, SuperiorHealth Medical Group, University of Minnesota Physicians, Winona Clinic, Ltd., Winona Health

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SOURCE(S) OF FUNDING

The following Minnesota health plans provide direct financial support: Blue Cross and Blue Shield of Minnesota, HealthPartners, Medica, Metropolitan Health Plan, PreferredOne, and UCare Minnesota. In-kind support is provided by the Institute for Clinical Systems Improvement's (ICSI) members.

GUIDELINE COMMITTEE

Committee on Evidence-Based Practice

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Work Group Members: Peter Rothe, MD (Work Group Leader) (HealthPartners Medical Group) (Internal Medicine); David Danielson, MD (Mayo Clinic) (Anesthesiology); Charles Boback, MD (Stillwater Medical Center) (Family

Medicine); John Robrock, MD (Park Nicollet Health System) (Family Medicine); William Sypura, MD (Columbia Park Medical Group) (Family Medicine); Alan Johns, MD (St. Mary's/Duluth Clinic Health System) (Internal Medicine); Mary Kay Johnston, RN, MS (HealthPartners Medical Group) (Nursing); Jerry Stultz, MD (RiverWay Clinics) (Pediatrics); Kevin Bjork, MD (Stillwater Medical Center) (Surgery); Amy Murphy, MHHA (Institute for Clinical Systems Improvement) (Measurement/Implementation Advisor); Sherri Huber, MT (ASCP) (Institute for Clinical Systems Improvement) (Facilitator)

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

In the interest of full disclosure, Institute for Clinical Systems Improvement (ICSI) has adopted the policy of revealing relationships work group members have with companies that sell products or services that are relevant to this guideline topic. The reader should not assume that these financial interests will have an adverse impact on the content of the guideline, but they are noted here to fully inform users. Readers of the guideline may assume that only work group members listed below have potential conflicts of interest to disclose.

No work group members have potential conflicts of interest to disclose.

ICSI's conflict of interest policy and procedures are available for review on ICSI's website at www.icsi.org.

GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: Preoperative evaluation. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2003 Sep. 34 p.

GUIDELINE AVAILABILITY

Electronic copies: Available from the Institute for Clinical Systems Improvement (ICSI) Web site.

Print copies: Available from ICSI, 8009 34th Avenue South, Suite 1200, Bloomington, MN 55425; telephone, (952) 814-7060; fax, (952) 858-9675; Web site: www.icsi.org; e-mail: icsi.info@icsi.org.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Preoperative evaluation. Executive summary. Bloomington (MN): Institute for Clinical Systems Improvement, 2006 Jul. 1 p. Electronic copies: Available from the Institute for Clinical Systems Improvement (ICSI) Web site.
- ICSI pocket guidelines. April 2006 edition. Bloomington (MN): Institute for Clinical Systems Improvement, 2006. 298 p.

Print copies: Available from ICSI, 8009 34th Avenue South, Suite 1200, Bloomington, MN 55425; telephone, (952) 814-7060; fax, (952) 858-9675; Web site: www.icsi.org; e-mail: icsi.info@icsi.org.

Additionally, a patient preoperative guide and adult and pediatric preoperative forms and questionnaires can be found in Appendix A-D in the original guideline document.

PATIENT RESOURCES

None available

NGC STATUS

This summary was updated on December 4, 2002. The updated information was verified by the guideline developer on December 24, 2002. This summary was updated by ECRI on May 3, 2004, and September 18, 2006.

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Date Modified: 10/2/2006